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REMARKS

Claims 1-9, 11-19, 21-27, and 29-37 are currently pending. Claims 1, 10, 13, 19, 27, 29, 36, and 37 have been amended to incorporate subject matter from indicated as allowable claims 20 and 28 and/or for clarification. Claims 10, 20, and 28 have been canceled. It is respectfully submitted that no new matter has been added.

The Patent Office rejected claims 1-3, 5, 7-19, 23, 27, 30, 31, 33, and 35-37 under 35 U.S.C. 103(a) as being unpatentable over Sasaki, U.S. Patent No. 5,483,679, in view of Wolff et al., "Microwave Engineering and System Applications," pages 214-222, published by John Wiley & Son, Inc., in 1988.

The Patent Office rejected claims 4, 6, 21, 24, 32, and 34 under 35 U.S.C. 103(a) as being unpatentable over Sasaki, U.S. Patent No. 5,483,679, in view of Wolff et al., "Microwave Engineering and System Applications," pages 214-222, published by John Wiley & Son, Inc., in 1988, and further in view of Vagher, U.S. Patent No. 6,362,685.

The Patent Office rejected claim 22 is U.S.C. 103(a) as being unpatentable over Sasaki, U.S. Patent No. 5,483,679, in view of Wolff et al., "Microwave Engineering and System Applications," pages 214-222, published by John Wiley & Son, Inc., in 1988, and further in view of Khanifar, U.S. Published Patent Application No. 2006/0087374.

The Patent Office rejected claims 25 and 26 under 35 U.S.C. 103(a) as being unpatentable over Sasaki, U.S. Patent No. 5,483,679, in view of Wolff et al., "Microwave Engineering and System Applications," pages 214-222, published by John Wiley & Son, Inc., in 1988, and further in view of Ishii, U.S. Published Patent Application No. 2004/0203734.

Claim 1 recites as follows:

A transceiver, comprising: a TX path mixer that up converts a signal to be transmitted, a RX path mixer that down converts a received signal, and a local oscillator having an output providing a mixing frequency for each of said TX and RX mixers; further comprising a directional coupler comprising an input node coupled to said output of said local oscillator and further comprising a first output node coupled to said TX path mixer and a second output node coupled to said RX path mixer, the directional coupler further comprising an isolation node, wherein an impedance terminating the isolation node is different from a load impedance of the first output node.

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Claim 13 recites as follows:

A method for generating transceiver signals, comprising: up converting a signal to be transmitted via a TX path mixer, down converting a received signal via a RX path mixer, providing a local oscillator having an output providing a mixing frequency for each of said TX and RX mixers; coupling the output of said local oscillator to an input node of a directional coupler, and coupling said TX path mixer to a first output node of said directional coupler and coupling said RX path mixer to a second output node of said directional coupler, the directional coupler further comprising an isolation node, wherein an impedance terminating the isolation node is different from a load impedance of the first output node.

Claim 19 recites as follows:

A device, comprising: a radio frequency transceiver comprising: a TX path mixer that up converts a signal to be transmitted; a RX path mixer that down converts a received signal; a local oscillator having an output providing a mixing frequency for each of said TX and RX mixers; and a directional coupler comprising an input node coupled to said output of said local oscillator and further comprising a first output node coupled to said TX path mixer and a second output node coupled to said RX path mixer, the directional coupler further comprising an isolation node, wherein an impedance terminating the isolation node is different from a load impedance of the first output node.

Claim 27 recites as follows:

A circuit comprising: a TX path mixer that up converts a signal to be transmitted; a RX path mixer that down converts a received signal; a local oscillator having an output providing a mixing frequency for each of said TX and RX mixers; and a directional coupler comprising an input node coupled to said output of said local oscillator and further comprising a first output node coupled to said TX path mixer and a second output node coupled to said RX path mixer, the directional coupler further comprising an isolation node and an amplifier coupled to the TX path mixer, the isolation node being electrically connected to circuit ground through an impedance that is substantially matched to an output load impedance of the amplifier coupled to the TX path mixer.

Claim 36 recites as follows:

A device comprising: first means for mixing a first signal with a mixing frequency to up convert the first signal for transmission; second means for

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mixing a second signal with the mixing frequency to down convert the second signal that has been received; and means for generating the mixing frequency; and means for coupling the mixing frequency to said first and second mixing means, said coupling means providing isolated paths for providing the mixing frequency to the first and second mixing means, the means for coupling further comprising an isolation node and an amplifier coupled to the first means for mixing a first signal, the isolation node being electrically connected to circuit ground through an impedance that is substantially matched to an output load impedance of the amplifier coupled to the first means for mixing a first signal.

Claims 1-9, 11-19, 21-27, and 29-37 are allowable over the prior art of record because they all recite indicated as allowable subject matter from claims 20 and 28.

The Patent Office is respectfully requested to reconsider and remove the rejections of the claims 1-19, 21-27, and 30-37 under 35 U.S.C. 103(a) based on Sasaki in view of Wolff, whether or not in combination with Vagher, Ishii, and/or Khanifar, and to allow all of the pending claims 1- as now presented for examination. An early notification of the allowability of claims 1-9, 11-19, 21-27, and 29-37 is earnestly solicited.

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April 9, 2007 Walter J. Malinowski
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